**NEWS**

**IN BRIEF**
1244 News at a glance

**IN DEPTH**
1248 GIANT ATOM-SMASHER GEARS UP TO CHASE WHIFF OF NEW PHYSICS
Hints of a massive new particle at the Large Hadron Collider have physicists abuzz—and eager to follow up
By A. Cho

1249 EFFORTS TO LINK CLIMATE CHANGE TO SEVERE WEATHER GAIN GROUND
U.S. academies find researchers getting better at attributing heat waves, cold snaps, and other events to climate trends
By W. Cornwall

1250 FIVE MATINGS FOR MODERNS, NEANDERTALS
Powerful genetic studies pin down multiple trysts on different continents
By A. Gibbons
▶ B. VERNOT ET AL. 10.1126/science.aad9416

1252 EUROPE ON COURSE FOR A NEUTRON DROUGHT
Billion-euro accelerator won’t make up for the shortfall, experts say
By E. Cartlidge

1253 TESTS OF BLOOD-BORNE DNA PINPOINT TISSUE DAMAGE
Assays spot cell death from diabetes, cancer, and more
By J. Kaiser

**FEATURE**
1254 VOYAGE INTO DARKNESS
Researchers are learning that Arctic organisms aren’t dormant during the long polar night
By E. Kintisch

**INSIGHTS**

**PERSPECTIVES**
1258 REBOOT GITMO FOR U.S.-CUBA RESEARCH DIPLOMACY
Transform Guantánamo into a peace park and ecological research center
By J. Roman and J. Kraska

1260 SQUEEZING INTO SUPERCONDUCTIVITY
Synchrotron light sources can be used to probe superconductivity at extreme pressures
By V. Struzhkin
▶ REPORT P. 1303

1262 LARGE, SOFT, AND POLARIZABLE HYDRIDE IONS SNEAK AROUND IN AN OXYHYDRIDE
A perovskite containing highly electropositive cations conducts hydride anions
By S. Yamaguchi
▶ REPORT P. 1314

1263 NEW MECHANISMS, NEW WORRIES
The increasing spread of colistin resistance is resulting in untreatable infections
By M. Sprenger and K. Fukuda

1264 THE ENIGMATIC TUFT CELL IN IMMUNITY
An intestinal cell stimulates the immune response to parasitic infections
By N. Harris
▶ REPORT P. 1329

1266 A RADICALLY UNEXPECTED MECHANISM
 Biosynthesis of the antibiotic nosiheptide proceeds via unforeseen radical intermediates
By J. Bridwell-Rabb and C. L. Drennan
▶ REPORT P. 1320

1267 QUANTUM DYNAMICS IN THE SMALLEST WATER DROPLET
Two hydrogen bonds in a six-molecule water cluster break simultaneously in a concerted set of movements
By D. C. Clary
▶ REPORT P. 1310

1268 A SATIATING SIGNAL
A glycosylation enzyme in specific brain neurons is a nutrient sensor that controls body weight
By G. J. Schwartz
▶ RESEARCH ARTICLE P. 1293

**BOOKS ET AL.**
1270 SCIENCE BLOGGING
C. Wilcox et al., Eds.; reviewed by A. D. Thaler

1271 HALF-EARTH
By E. O. Wilson, reviewed by C. J. Griffiths

**LETTERS**
1273 A WAVE OF INSPIRATION
By J. McNerney

1273 RISKS OF WOLBACHIA MOSQUITO CONTROL
By E. L. S. Loreto and G. L. Wallau

1273 CURBING IRAN’S ACADEMIC MISCONDUCT
By B. Ataie-Ashtiani

1274 TECHNICAL COMMENT ABSTRACTS
The maternal microbiota drives early postnatal innate immune development

RESEARCH

IN BRIEF

1276 From Science and other journals

REVIEW

1279 CHEMISTRY
Designer protein delivery: From natural to engineered affinity-controlled release systems M. M. Pakuloka et al.

REVIEW ARTICLE SUMMARY; FOR FULL TEXT: dx.doi.org/10.1126/science.aac4750

RESEARCH ARTICLES

PLANETARY SCIENCE

1280 The atmosphere of Pluto as observed by New Horizons G. R. Gladstone et al.

RESEARCH ARTICLE SUMMARY; FOR FULL TEXT: dx.doi.org/10.1126/science.aae0030

▶ PODCAST

1281 The small satellites of Pluto as observed by New Horizons H. A. Weaver et al.

RESEARCH ARTICLE SUMMARY; FOR FULL TEXT: dx.doi.org/10.1126/science.aad9045

1283 Surface compositions across Pluto and Charon W. M. Grundy et al.

RESEARCH ARTICLE SUMMARY; FOR FULL TEXT: dx.doi.org/10.1126/science.a9189

1284 The geology of Pluto and Charon through the eyes of New Horizons J. M. Moore et al.

1293 FEEDING BEHAVIOR
The nutrient sensor OTG in PVN neurons regulates feeding O. Lagerlf et al.

▶ PERSPECTIVE P. 1268

1296 MICROBIOTA
The maternal microbiota drives early postnatal innate immune development M. Gomes de Aguiro et al.

REPORTS

1303 SUPERCONDUCTIVITY
Observation of superconductivity in hydrogen sulfide from nuclear resonant scattering I. Troyan et al.

▶ PERSPECTIVE P. 1260

1306 NANOMATERIALS
Formation of pseudomorphic nanocages from Cu3O nanocrystals through anion exchange reactions H.-L. Wu et al.

1310 HYDROGEN BONDING
Concerted hydrogen-bond breaking by quantum tunneling in the water hexamer prism J. O. Richardson et al.

▶ PERSPECTIVE P. 1267

1314 IONIC MATERIALS
Pure H+ conduction in oxyhydrides G. Kobayashi et al.

▶ PERSPECTIVE P. 1262

1317 GAS INFRASTRUCTURE
Methane emissions from the 2015 Aliso Canyon blowout in Los Angeles, CA S. Conley et al.

1320 BIOCHEMISTRY
Fine-tuning of a radical-based reaction by radical S-adenosyl-L-methionine tryptophan lyase G. Sicoli et al.

▶ PERSPECTIVE P. 1266

1324 NEUROINFLAMMATION
C9orf72 is required for proper macrophage and microglial function in mice J. G. O'Rourke et al.

1329 MUCOSAL IMMUNITY
Tuft cells, taste-chemosensory cells, orchestrate parasite type 2 immunity in the gut M. R. Howett et al.

▶ PERSPECTIVE P. 1264

1333 INFLAMMATION
Prostaglandin E2 constrains systemic inflammation through an innate lymphoid cell–IL-22 axis R. Duffin et al.

1339 EBOLA VIRUS
Protective monotherapy against lethal Ebola virus infection by a potently neutralizing antibody D. Corti et al.

1343 Structural and molecular basis for Ebola virus neutralization by protective human antibodies J. Misasi et al.

1264 & 1329

1267 & 1310

EBOLA VIRUS

1264 & 1329

ON THE COVER

Pluto's surface, as seen by the New Horizons spacecraft. At left is the bright white Sputnik Planum, a plain of nitrogen ice. Its numerous surface pits are probably formed by sublimation.

On the right are the dark red highlands of Krun Macula, rising 2.5 kilometers above the plains. To create this image, several exposures of the Long-Range Reconnaissance Imager were combined with color data from the Multispectral Visible Imaging Camera. See pages 1280 to 1293. Photo: NASA/ Applied Physics Laboratory/Southwest Research Institute; Image composition and processing by P. Engebretson

Published by AAAS

18 MARCH 2016 • VOLUME 351 • ISSUE 6279

Downloaded from http://science.sciencemag.org on November 8, 2016
Editor's Summary

This copy is for your personal, non-commercial use only.

**Article Tools**  Visit the online version of this article to access the personalization and article tools:
http://science.sciencemag.org/content/351/6279

**Permissions**  Obtain information about reproducing this article:
http://www.sciencemag.org/about/permissions.dtl